

REMARKS

Entry of the foregoing and reexamination and reconsideration of the subject application, as amended, pursuant to and consistent with 37 C.F.R. § 112, are respectfully requested in light of the following remarks.

Claims 20-23 and 25-50 are pending in this application. Claim 24 has been cancelled in this amendment. Claims 1-19 were previously cancelled.

Claim 20 has been amended to recite that the at least two distinct oligomeric compounds have at least one biuret and/or acylurea bond; to define the groups derived from isocyanate groups; and to add the proviso that when the compounds have at least one biuret bond and at least one aminoalkylsilane unit, the amine functional group inserted in the at least one biuret is bonded to the at least one aminoalkylsilane unit. Support for the biuret and /or acyl bonds is found in the specification on page 32, lines 34-35 and page 17, line 15. Support for the groups derived from isocyanate groups is found in cancelled claim 23, which has been incorporated into claim 20 from which it depended, and in the specification on page 12, line 37 - page 13, line 3. Support for the proviso is found in the specification at least on page 15, lines 1-10, page 18, line 20-22 to page 22, line 17, particularly page 18, lines 21-22 and page 19, lines 8-9. Claim 21 has been amended to recite that the ratio of the stated units is in equivalents. Support for this amendment is found in the claim itself and in the specification on page 12, lines 10-13, where the ratio is recited in terms of units to units. Claim 22 has been amended to recite that the percentage is by weight of the composition. Support for this amendment is found in the specification on page 12, lines 15-17. Claim 25 has been amended to recite

the definition of R1, to remove language regarding optional ranges and to recite proper claim language. Support for the definition of R1 is found in the specification on page 22, lines 7-13. Claims 27-31, 33 and 34 have been amended to recite the content of the recited groups is on a weight basis. Support for these amendments is found in the specification at least on page 13, line 15 - page 14, line 1. Claim 35 has been amended to delete redundant language. Claims 36 and 37 have been amended to remove optional claim language.

Claims 38-50 have been added. Each of the new claims is analogous to an existing claim, where the new claim recites the "optional" values which were deleted from the corresponding preexisting claim. The table below shows the association between the previous claims and the new claims.

<u>Existing claim</u>	<u>Corresponding new claim</u>
22	38
23	39
25	40, 41
27	42
28	43
29	44
30	45
31	46
33	47
34	48
36	49
37	50

No new matter has been added in making these amendments.

35 U.S.C. §112 second paragraph

Claims 20-37 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicants regards as the invention. Each of the nine (A-I) specific rejections is addressed below.

- A. The Office Action indicates that while the term "a polyisocyanate composition comprising" is used in the preamble of the claims, the rest of each the claims do not require any "polyisocyanates". The Office Action also indicates that it is unclear if "polyisocyanates" of the preamble requires the presence of true "polyisocyanates" or if the language following the preamble is limiting as true "polyisocyanates" are not required to be present in the polyisocyanate compositions.

The Federal Circuit has had the opportunity to decide a number of §112, second paragraph, cases. From these cases, it is clear that the definiteness of claim language must be analyzed, not in a vacuum, but in light of (1) the content of the particular application disclosure, (2) the teachings of the prior art, and (3) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. See, for example, In re Marosi, 710 F.2d 799, 218 U.S.P.Q. 289 (Fed. Cir. 1983). The purpose of the claims is not to explain the technology or how it works, but to state that legal boundaries of the patent grant. A claim is not "indefinite" simply because it is hard to understand when viewed without benefit of the specification. See S3 Inc. v. nVidia Corp., 259 F.3d 1364, 59 U.S.P.Q. 2d 1745 (Fed. Cir. 2001).

Applicants submit that the meaning of "a polyisocyanate composition comprising" is clear when read in light of the content of the application's disclosure, the teachings of the prior art and when interpreted by those

possessing the ordinary level of skill in the art. Claim 20 requires at least one functional group selected from the group consisting of isocyanate functional groups and those which derive therefrom. Based on the language in the claim, multiple "true isocyanate" would not be required. The specification also discloses examples of compositions comprising a single "true" isocyanate unit (see structure 3 on page 20 and structures 7-9 on page 23) as well as structures with more than one isocyanate unit (see structures 1 and 2 on page 19). Applicants submit that one of ordinary skill in the art having read the claim as a whole would readily understand the structures encompassed by the claims. Accordingly, Applicants submit that because one of ordinary skill would be able to tell with a reasonable degree of certainty whether his or her conduct is within or outside the scope of the claims, the claims are neither vague nor indefinite. See *In re Borokowski*. For at least the reasons stated above, Applicants respectfully request reconsideration and withdrawal of this rejection.

- B. Claim 35 has been amended to delete redundant claim language.
- C. Claims 21, 22, 27-31, 33, 34 and 36 have each been amended to recite the basis for the percentages in each of the claims.
- D. Claims 22, 27-31, 33, 34 and 36 have been amended to recite that the amounts are based on the entire composition.
- E. Claim 25 has been amended to define R1, which is defined in the specification on page 22, lines 7-13.
- F. The Office Action indicates that it is not clear what is intended by the term "isocyanalkylsilane corresponding to the aminoalkylsilane", particularly "

corresponding to the aminoalkylsilane". The term reflects a compound analogous to the aminoalkylsilane where the amine group is replaced by an isocyanate group.

- G. Claims 22, 23, 25, 27-31, 33, 34, 36 and 37 have been amended to delete the "optional" values. Analogous claims have been added which recite the deleted "optional" values in claims 22, 23, 25, 27-31, 33, 34, 36 and 37.
- H. The Office Action indicates that it is unclear if the instantly claimed "diamino" is intended to reference a structure having two amino nitrogens as "diamino" is conventionally used, or a structure having two hydrogen atoms on an nitrogen. Applicants direct the Examiners attention to page 1, lines 26 - 38 of the specification which recites that a diamino unit has a structure with a carbon bonded to two nitrogens and thus has the structure:



Therefore it is clear that the term "diamino" references a structure having two amino nitrogens as is conventionally used.

- I. The Office Action indicates that claim 35 references biuret functional groups but the method does not require any biuret functional groups in the recited reactants nor their formation. The Office Action indicates that it is unclear whether the claimed method requires the preamble limitation regarding biuret groups or is intended to have the full scope of the method claimed after the preamble, which does not require biuret groups. The method requires the presence of a biuret functional group, as defined in the specification. Evidence for this can be found in claim 36, which depends from claim 35 and requires a specific amount of a biuret functional group.

Applicants therefore request the withdrawal of the rejection these claims under 35 U.S.C. §112, second paragraph.

35 U.S.C. §112 first paragraph

Claims 20-23 and 25-34 have been rejected under 35 U.S.C. §112, first paragraph, as not being enabling for all groups that derive from isocyanate groups. The Office Action indicates that specification is enabling to the disclosed compounds which derive from isocyanate groups.

Claim 20 has been amended to recite that the groups derived from isocyanate groups are selected from the group consisting of carbamate, uretidinedione, isocyanurate, biuret, allophanate, pseudoallophanate, 4,6-dioxo-2-imino-hexahydro-1,3,5-triazine, iminooxadiazinedione and 2-imino-4-oxo-1,3-diazetidine. These functional groups are recited in paragraph [0074] of the specification. Therefore these claims are enabled for the specific groups recited.

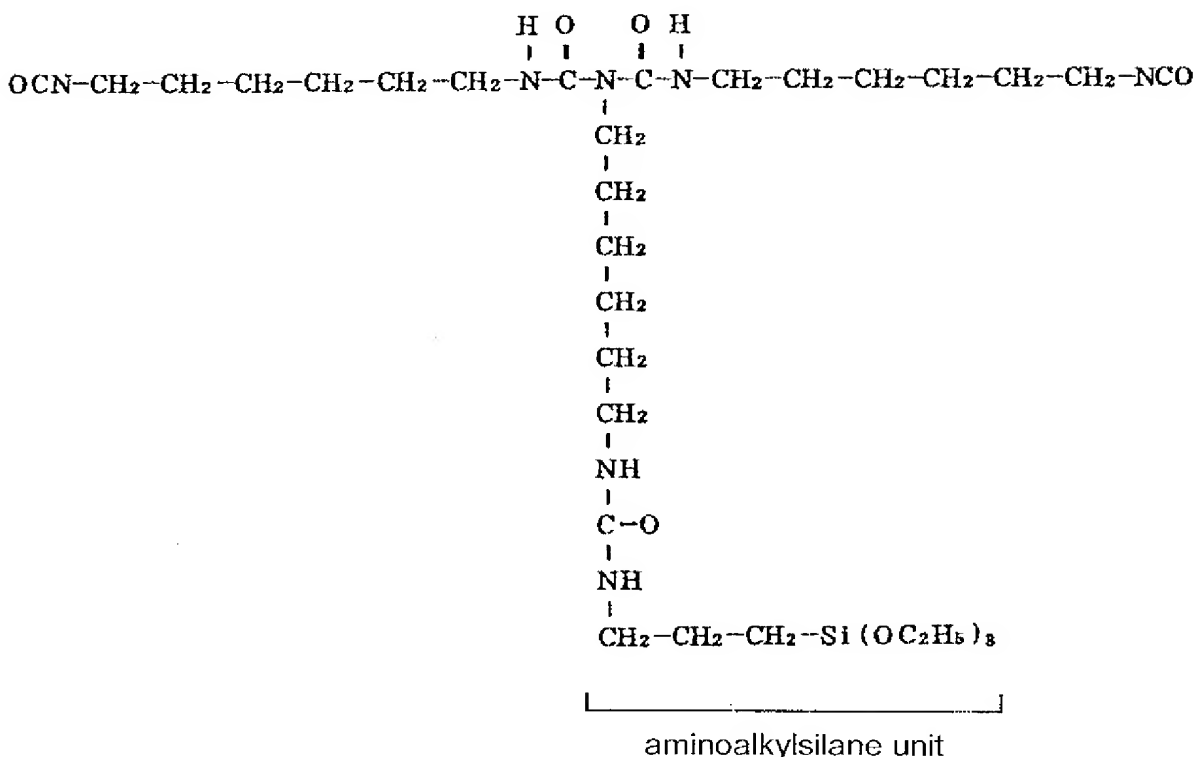
Applicants therefore request that this rejection be withdrawn.

35 U.S.C. §102(b) prior art rejection

Claims 20-37 have been rejected under 35 U.S.C. §102(b) as being anticipated by Yamakado (JP 62-250021).

It is well established that in order to demonstrate anticipation under 35 U.S.C. § 102, each feature of the claim at issue must be found, either expressly described or under principles of inherency, in a single prior art reference. See, *Kalman v. Kimberly-Clark Corp.*, 218 USPQ 789 (Fed. Cir. 1983).

Yamakado teaches the reaction of the biuret of HDI (a trimer) with aminopropyltriethoxysilane. The reaction of the isocyanate functions of the biuret with the amine function of the silane results formation of material with a different structure due to the formation of urea bonds. This is shown in the structure on page 142 of Yamakado, which is reproduced below.



The aminoalkylsilane unit is not bonded to the amine functional group of the biuret, as required by claim 20 of the instant application, but rather is bonded to the amine functional group of the urea. Therefore claim 20, and claims depending from claim 20, are not anticipated by Yamakado.

Claim 35 of the instant application requires reacting at least one isocyanate monomer with an aminosilane. However Yamakado teaches reacting an oligomer (a

trimer), not a monomer, with an aminosilane. Therefore claim 35, and claims depending from claim 35 are not anticipated by Yamakado.

Applicants respectfully submit that claims 20-37 are not anticipated by JP 62-250021 to Yamakado and the rejection should be withdrawn.

In view of the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order. Such action is earnestly solicited.

In the event that there are any questions related to this response, or the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney at the below-listed telephone number concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

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